## AMENDMENTS TO

## THE WATER QUALITY CONTROL PLAN FOR THE SACRAMENTO RIVER AND SAN JOAQUIN RIVER BASINS

## FOR

## THE CONTROL OF ORCHARD PESTICIDE RUNOFF AND DIAZINON RUNOFF INTO THE SACRAMENTO AND FEATHER RIVERS

FINAL STAFF REPORT
APPENDIX D

Summary of Monitoring Programs and Studies
Used as Sources of Sacramento Valley
Diazinon Concentration Data

Reference Citation:	Agency	Title	Monitoring Time Period	Monitoring Sites in the Sacramento Valley (sites are near the named water body's outlet unless otherwise specified)
MacCoy et al., 1995.	USGS	Dissolved Pesticide Data for the San Joaquin River at Vernalis and the Sacramento River at Sacramento, California, 1991-1994.	Jan 1991 – April 1994	Sacramento River at Sacramento
Larry Walker Associates, 2002a	Maintained by Larry Walker Associates for Sacramento Regional County Sanitation District	Sacramento Coordinated Monitoring Program (CMP) Database	1997 – 2002	Sacramento River at Veterans Bridge (Alamar Marina) near Woodland. American River at Discovery Park and Nimbus Fish Hatchery.
Foe and Sheipline, 1993	CVRWQCB	Pesticides in Surface water from Applications on Orchards and Alfalfa during the Winter and Spring of 1991- 1992	Jan 1992 – Feb 1992	Clarks Ditch (tributary to Colusa Drain), Gilsizer Slough, Feather R. 200 yards downstream of intersection of Lee Rd. and Garden Highway
Kuivila and Foe, 1995	USGS, CVRWQCB	Concentrations, Transport and Biological Effects of Dormant Spray Pesticides in the San Francisco Estuary, California.	Jan, Feb 1993	Sacramento River at Sacramento
Ganapathy, C et al., 1997	DPR	Temporal Distribution of Insecticide Concentrations in Four California Rivers	Nov 1993 – Nov 1994	Sacramento River 1 mile South of Verona (2.5 mi downstream of confluence of Sacramento and Feather rivers)
Holmes et al., 2000	CVRWQCB	Sources and Concentrations of Diazinon in the Sacramento Watershed During the 1994 Orchard Dormant Spray Season	Jan 1 – March 4, 1994	Sacramento River at Bend, Red Bluff, Vina, Hamilton City, Ord Bend, Butte City, Colusa, and Sacramento; Feather River near Nicolaus, Bear River, Yuba River, Jack Slough, Sacramento Slough, Colusa Basin Drain, Main Drain, Wadsworth Canal, Obanion Outfall, Sacramento Outfall, Butte Slough, Feather River at Yuba City, Honcut Creek

Reference Citation:	Agency	Title	Monitoring Time Period	Monitoring Sites in the Sacramento Valley (sites are near the named water body's outlet unless otherwise specified)
Domagalski, 1996	USGS	Pesticides and Pesticide Degradation Products in Stormwater Runoff: Sacramento River, California	Jan 12 – Feb 4, 1994	Primary Sites: Sacramento River at Colusa, Feather River at Yuba City, Butte Slough, Feather R. Below Yuba City, Colusa Basin Drain, Sac Slough, Sacramento River at Sacramento.  Additional Sites (sampled once): Main Drain, Honcut Ck., Jack Slough, Yuba R @ Yuba City, Wadsworth Canal, O'Bannion Dr., DWR Drain, Bear R.
Domagalski, 2000	USGS	Pesticides in Surface Water Measured at Select Sites in the Sacramento River Basin, California, 1996-1998. Water- Resources Investigations Report 00- 4203.	Nov 1996 – April 1998	Arcade Creek, Colusa Basin Drain, Yolo Bypass at Interstate 80 near West Sacramento, Sacramento River at Freeport
Nordmark, et al., 1998.	CDPR	Occurrence of Aquatic Toxicity and Dormant-Spray Pesticide Detection in the Sacramento River Watershed, Winter 1996-1997	December 1996- March 1997	Sutter Bypass at Karnak, Sutter Bypass at Kirkville Road, Sacramento River at Bryte
Nordmark, 1998	CDPR	Preliminary Results of Acute and Chronic Toxicity Testing of Surface Water Monitored in the Sacramento River Watershed, Winter 1997-98	December 1997- March 1998	Sutter Bypass at Karnak, Sutter Bypass at Kirkville Road, Sacramento River at Veterans Bridge (Alamar Marina) near Woodland
Larry Walker Associates, 2002b	Sacramento River Watershed Program	Sacramento River Watershed Program Waters Quality Database	June 99 – June 01	Sacramento River at Colusa, Hamilton City, and Veterans Bridge; Sacramento River below Keswick, Sacramento River above Bend Bridge, Arcade Creek, Clear Creek, Colusa Basin Drain, Mill Creek, Deer Creek, Sacramento Slough, Feather River near Nicolaus, American River at Discovery Park
Nordmark, 1999	CDPR	Preliminary Results of Acute and Chronic Toxicity Testing of Surface Water Monitored in the Sacramento River Watershed, Winter 1998-99	December 1998- March 1999	Sutter Bypass at Karnak, Sutter Bypass at Kirkville Road, Sacramento River at Veterans Bridge (Alamar Marina) near Woodland, Wadsworth Canal at Franklin Road
Russick, 2001	Russick Consulting for City of Sac	Characterization of OP Pesticides in Sacramento Urban Runoff and Receiving Waters	May 99 – May 2000	5 Arcade Creek Sites, City of Sacramento stormwater sumps #111 and 152 (tributaries to the American River), Strong Ranch Slough (tributary to the American River). Four Sacramento area rainwater sampling sites.

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Nordmark, 2000	CDPR	Preliminary Results of Acute and Chronic Toxicity Testing of Surface Water Monitored in the Sacramento River Watershed, Winter 1999-2000	December 1999- March 2000	Sutter Bypass at Karnak, Sutter Bypass at Kirkville Road, Sacramento River at Veterans Bridge (Alamar Marina) near Woodland, Wadsworth Canal at Franklin Road
Gill, 2002	CDPR	Preliminary Results of Acute and Chronic Toxicity Testing of Surface Water Monitored in the Sacramento River Watershed, Winter 2000-2001	January 2001 – March 2001	Sutter Bypass at Karnak, Sacramento River at Veterans Bridge (Alamar Marina) near Woodland, Wadsworth Canal
Dileanis et al., 2002	USGS	Occurrence and Transport of Diazinon in the Sacramento River, and Selected Tributaries During Three Winter Storms, January-February 2000. USGS Water Resources Investigation Report 02-4101.	Jan, Feb 2000	Sacramento River at Alamar, Sacramento and Colusa; Colusa Basin Drain, Feather R at Nicolaus, DWR Pumping Pant 1, Bear R nr Berry Road, DWR Pumping Plant 2, north, DWR Pumping Plant 2, south, Gilsizer Sl, Feather R at Yuba City Yuba R at Marysville, Wadsworth Canal, Jack Slough, Butte Slough, Butte Ck, Cherokee Canal, Main
Dileanis, 2002a	USGS	Report has not yet been published	Dec 2000 – Feb 2001	Sacramento R at Alamar, Hamilton City, Sacramento and Colusa; Feather R near Nicolaus, Feather River at Yuba City, Big Chico Creek, Little Chico Ck, Butte Slough, Butte Creek, Main Canal, Stony Creek, Mud Ck, Lindo Creek, Wadsworth Canal, Jack Slough, Bear River, Sacramento Outfall (Gilsizer SI), Obanion Outfall South, Obanion Outfall North (Gilsizer SI)
Dileanis, 2002b	USGS	Report has not yet been published	Jan - March 2002	Sacramento River at Alamar and Colusa; Feather River near Verona, Main Drainage Canal near Gridley, Wadsworth Canal, Butte Slough at Pass Road, Sacramento Slough near Verona
Dileanis, 2003	USGS	Report has not yet been published	Jan – Feb 2003	Sacramento River at Alamar, Feather River near Verona, Sacramento Slough near Verona
Larry Walker Associates, 1996	Larry Walker Associates	Sacramento Coordinated Water Quality Monitoring Program 1995 Annual Report	Jan, Feb 1995	Sacramento River at Veterans Bridge
Foe et al., 1998	CVRWQCB, Cal/EPA	Toxicity Identification Evaluations of Orchard Dormant Spray Storm Runoff	January 1997	Sacramento Slough at north side of Hwy 113 Bridge

Reference Citation:	Agency	Title	Monitoring Time Period	Monitoring Sites in the Sacramento Valley (sites are near the named water body's outlet unless otherwise specified)
Larsen et al., 1998	Prepared for the Sacramento Regional County Sanitation District	Sacramento River Watershed Program Toxicity Monitoring Results: 1997- 1998	October 1996 – May 1998	Arcade Creek at Norwood Ave, Sacramento Slough at Karnak (during flood stage river flows - Sacramento Slough at Kirkville), Feather River near Nicolaus
Larsen and Perez, 2000.	CVRWQCB, Cal/EPA	Sacramento River Watershed Program Toxicity Testing Data Results Summary: 1998-99	June 1998 – June 1999	Arcade Creek at Norwood Ave
List et al, 2002	CVRWQCB, Cal/EPA	Sacramento River Watershed Program Toxicity Testing Data Summary: 1999- 2000	Jan 1997 – May 2000	Arcade Creek at Norwood Avenue, Feather River 2 miles downstream of Hwy 99 Bridge, Sacramento Slough at Karnak

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